Atty Dkt. No.: 10010632-3 USSN: 10/611.409

## AMENDMENTS

Please incorporate the following amendments into the subject application.

## In the Claims:

- 1-20. (Cancelled).
- 21. (Previously Presented) A method of determining a nucleic acid sequence, said method comprising:
  - (a) hybridizing a primer nucleic acid to a single stranded template nucleic acid;
  - (b) extending said primer nucleic acid by at least one complementary nucleotide to produce an extension product that includes a 3' cleavable tag, wherein said at least one complementary nucleotide includes a 3' cleavable tag;
  - (c) cleaving said 3' cleavable tag from said extension product to produce a cleaved tag, not bound to said at least one complementary nucleotide, and an extension product that includes said at least one complementary nucleotide hybridized to said template nucleic acid sequence; and
  - (d) detecting said cleaved tag away from said extension product to determine said nucleic acid sequence.
- 22. (Previously Presented) The method according to Claim 21, wherein said primer nucleic acid is extended by a single deoxynucleotide triphosphate labeled with a cleavable tag (cdNTP) to produce said extension product.
- 23. (Previously Presented) The method according to Claim 22, wherein said extension product is produced by a polymerase in the presence of four distinguishable cdNTPs.
- 24. (Previously Presented) The method according to Claim 23, wherein said four distinguishable cdNTPs each include a distinguishable cleavable tag.
- 25. (Previously Presented) The method according to Claim 21, wherein said primer nucleic acid is extended by an oligonucleotide of at least two nucleotides in length that includes a cleavable tag.

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26. (Previously Presented) The method according to Claim 25, wherein said cleavable tag is a 3' cleavable tag.

- (Previously Presented) The method according to Claim 25, wherein said extension product is produced by a ligase in the presence of said oligonucleotide.
- 28. (Previously Presented) The method according to Claim 21, wherein said cleavable tag is cleavable by chemical cleavage.
- (Previously Presented) The method according to Claim 28, wherein said cleavable tag is an acid cleavable tag.
- 30. (Previously Presented) The method according to Claim 28, wherein said cleavable tag is a base cleavable tag.
- 31. (Previously Presented) The method according to Claim 21, wherein said cleavable tag is a photocleavable tag.
- 32. (Previously Presented) The method according to Claim 21, wherein said cleavable tag is a fluorescent tag.
- 33. (Previously Presented) The method according to Claim 21, wherein said cleavable tag is a mass tag.
- 34. (Previously Presented) The method according to Claim 21, wherein said steps (a) to (d) are repeated at least once.

35-41. (Cancelled).

- 42. (Currently amended) A method of determining a nucleic acid sequence, said method comprising:
  - (a) hybridizing a primer nucleic acid to a single stranded template nucleic acid;

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 (b) extending said primer nucleic acid by at least one complementary nucleotide to produce a single extension product that includes a 3' cleavable tag, wherein said at least one complementary nucleotide includes a 3' cleavable tag;

- (c) cleaving said 3' cleavable tag from said single extension product to produce a cleaved tag not bound to said at least one complementary nucleotide, and an extension product that includes said at least one complementary nucleotide hybridized to said template nucleic acid sequence:
  - (d) detecting said cleaved tag away from said extension product:
- (e) repeating steps (b) to (d) and thereby determining said nucleic acid sequence.
- 43. (Currently amended) A method of determining a nucleic acid sequence, said method comprising:
  - (a) hybridizing a primer nucleic acid to a single stranded template nucleic acid in a sample;
  - (b) extending said primer nucleic acid by at least one a <u>single</u> complementary nucleotide to produce [[a]] <u>an</u> extension product that includes a 3' cleavable tag, wherein said <u>extension product is produced by a polymerase in the presence of four distinguishable nucleotides, each labeled with a <u>distinguishable 3' cleavable tag</u> at least one complementary nucleotide includes a 3'-cleavable tag:</u>
  - (c) cleaving said 3' cleavable tag from said extension product to produce a cleaved tag not bound to said at least one complementary nucleotide <u>and an extension product not separated from said single stranded template nucleic acid</u>; and
  - (d) detecting said cleaved tag away from said extension product; wherein said extension product is not separated from said single stranded template nucleic acid.
- (New) The method of claim 43, comprising repeating steps (b) to (d) on said extension product produced in step (c).